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The Educational Treatment of Defectives

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It must be admitted that the problem of the right educational treatment of defectives has met with only partial solution. Much is done with excellent intentions, but poor results. Many school superintendents are content to segregate a greater or less number of children in a special observational or opportunity class, and think that thereby the whole question is disposed of. Unfortunately, the criticism of these classes that may too often be offered is that they are not very special, the children are not properly observed, and no real opportunity is afforded them.

Even supposing that the children for such classes are selected on the basis of a comprehensive mental examination, adequate provision for their training is not made by the use of a few woodwork benches and a pile of basketry material plus a more or less intensive drill in reading, writing and arithmetic.

The truth is that there is no reason to suppose that, because a child has failed to assimilate a generalized academic training, he is therefore going to profit by an equally generalized manual training. Defectives vary in their abilities for manual work just as much as they do in their capacities for scholastic work. Woodwork is not suited to every boy nor needlework to every girl, and there is no more justification for uniform manual training than for uniform scholastic work. Then, too, we must not only consider the defective's aptitudes, but also his opportunities. The best possible reason for giving a defective manual training is that it may fit him with a practical occupation in after life, whereas ordinary scholastic work does not. But this

reason only holds good provided it can be shown that the defective does follow in after life the occupation for which he has been trained. If we give some years of training in carpentry to a boy who after leaving school follows the occupation of running errands or petty thieving—for which he requires no training—then a great deal of patient, heart-breaking effort must be largely discounted in value because the aptitude was never put to use.

Of course, there are indirect advantages in such a training. The child who is transferred from a class of fifty to one of fifteen may gain something from the more individual treatment. If he has become discouraged by constant failure at abstract work, it is going to add materially to his self-confidence and therefore to his happiness to be able to complete a concrete task, no matter how imperfectly. The change from a discouraging to an encouraging atmosphere will often, from the standpoint of behavior, work wonders with the troublesome child. In other words, an occupation of small profit is better than none. Finally, there remains as justification for the special class the advantage that appeals so much to the school superintendent—it removes the grit from the educational machine, and allows the wheels to run more smoothly. In this sense the children in a special class may rightly be regarded as being in an opportunity class. They allow the ordinary grade teacher an opportunity to do better work without them.

Summed up, then, the advantages of special education for defectives are, first, that the defective is sometimes humanized by individual treatment and thus made more fit to live with, whether within or without an institution, though here the warning is necessary that training in common cleanliness and decency must be given young and be long continued if permanent results are looked for. Secondly, he is given a form of training which we earnestly hope he is fitted to receive, and which we as earnestly hope he will have the opportunity to apply in after-life. Finally, the ordinary classes and class teachers are happy in getting rid of him.

This is said in no critical spirit nor without a thorough-going realization of the difficulty of the whole question. None realize better than we do the earnest and painful effort with which even these limited aims meet with partial accomplishment. Nor do we believe that there is, amongst special class teachers, a general self-satisfaction which requires to be rudely shaken. The most encouraging feature is

that teachers everywhere exhibit a most healthy spirit of dissatisfaction with the results of their work. None realize better than we do that the crux of the whole problem—the provision for after-care—lies outside the teacher's province. This essential part of the problem requires legislative and social action which the teacher cannot initiate.

Happily, the problem of training defectives within an institution is, for the very reason that after-care is provided for, far more practical and hence less disappointing. Still we are ready to admit that even in a special school within an institution the training given is of uneven value, that there is wasteful effort, that the treatment is not always fitted to the individual's needs, and *that we often find ourselves more concerned with the question as to whether we are doing the thing in the right way and not enough with whether it is the right thing to do.* In other words, in considering methods, we have sometimes lost sight of aims.

Hence, even with the realization that here is no perfect answer to the problem, it seems that we cannot do a better service to special class teachers than to summarize briefly Vineland's experience in the educational treatment of defectives, taking care to record the failures as well as the successes, frankly admitting that some things are done from expediency and not wholly from right, and paying attention in our discussion to why a thing is taught rather than how to teach it. teach it.

The plan of this brief paper therefore will be to set forth the subjects of the curriculum together with a frank discussion of the value and limitations of each as regards the training of defectives.

First, a word as to selection and classification of children. Is it possible to predict by means of tests the potentialities for training possessed by the defective? Our investigations show that the Binet tests do not correlate as well with industrial ability as do the graded maze series. On the other hand, a Binet rating does give a very close indication of ordinary scholastic learning capacity. Hence, if the special class is a restoration class in which intensive individual teaching is to bring the backward pupils up to grade, then a Binet examination will give an excellent basis for classification. If, however, potentialities for industrial training and social adaptation are to be estimated, then the Porteus tests will serve better. But by comparing the two test ages and taking an average, a better measure is obtained than with either test taken separately. The reason is that the Binet overestimates the practical ability of the mentally unstable

individual with good learning capacity, whilst the Porteus test overestimates the ability of the steady going, evenly balanced defective with poor intellectual learning capacity. The first point of importance then is the wise selection and classification of children.

This is essential even in the kindergarten. It has been found advisable to exclude all children with a mental level of 2 years or less from the kindergarten department. This was decided upon after investigation showed that children who had been in attendance for three or four years did not show even a fraction of improvement in return for all the effort expended. At one time all individuals with a mental age of less than 5 years were put in kindergarten regardless of their chronological age, but this practice was discontinued because the material and games are adapted only to small children. At present the children in the kindergarten number thirty, with an average chronological age of 9 years and an average mental age of about 4 years. Here, kindergarten methods modified as must as possible to lead up to the simpler forms of manual training have been found to be productive of improvement. Any form of school training is, however, without permanent results for children below the mental age of 3 years. Against better judgment, children of less intelligence have been kept in school because parents have such wonderful faith in the effects of schooling that they earnestly desire it to be given regardless of the mental level of their children. Yet, after years of patient effort, it has been found that such children have made no permanent gain.

Idiots for whom there is no possible future but custodial care have been kept for years in kindergarten, with no real gain in habits, disposition or intelligence. On the other hand, children mentally above these limits have greatly benefited by kindergarten training. Peg boards, bead stringing, sewing and weaving cards, etc., are useful in leading up to higher forms of manual training. The scope of the child's interest may be widened and his social qualities may be developed to a great extent by the kindergarten training. As a general rule, children of equal mental age who have come from public schools without a preliminary kindergarten training do not make as good manual workers as those children who have had this training.

There is an even greater necessity for the careful selection of children in classes in which ordinary school subjects are attempted. It is recognized that a defective of less than 7 years mentality can be taught to read, but the question is whether the effort is really worth while.

Miss Lindley made an investigation* as to the number of defectives with the ability to read who actually did so in after life. Out of 108 children investigated, not a single defective of 7 years or less Binet age was ever observed to read. Of those rating 8 and 9 years, only 18 per cent ever read, while 68 per cent of 10 and 11 year test age did so. Another investigation by the present school principal showed that children chronologically 12 years of age and mentally 7 years or less made no appreciable progress, even in merely mechanical reading ability. This is equally true of spelling and composition. As regards the utility of reading, a defective of 7 years' test age is most unlikely to be employed in an occupation where literacy is necessary. So we must face the position that children below this mental age read neither for pleasure nor profit. Why then waste time and effort teaching them? The general rule that has been evolved from this experience may be stated explicitly:—*Children whose ultimate test level is no more than 7 years should not be given any but the most elementary instruction in ordinary school subjects.* If, as Terman supposes, the intelligence quotient in children tends to remain constant, then we are perfectly safe in extending this rule by stating that *no child who has not an intelligence quotient above 50, or, in other words, has not for his age made half normal progress in mental development, should be instructed in ordinary school subjects at all.*

With children above these levels training should be made as practical as possible. Composition and reading of simple letters, the reading of stories, cooking recipes and simple instructions on dressmaking patterns, etc., have a positive value for the child who has sufficient intelligence to use the knowledge gained.

With regard to number—work, experience has shown that defective children do not use any but the very simplest operations. A girl of 10 years' test age, having forgotten to place dinner plates on a table seating seven people, instead of using her number training, was observed to go to the pantry three times before she got the required number. A boy with Binet age of 8 years, though able to add very long columns of figures by putting down strokes, has no idea of the relative values of numbers above 4 or 5. Yet years of painful effort have been expended in teaching him this occupation, with a net result that he employs the most rudimentary methods possible to obtain the answer, and has no idea at all of the value of this answer when

*"The Reading Ability of Feeble-Minded Children," Martha Lindley. Training School Bulletin, October, 1917.

obtained. As in the instance quoted above, girls of 8 and 9 years' Binet ages, after years of training in domestic science, will revert, if unsupervised, to trial and error methods, by carrying dishes back and forth until the required number is obtained. When the table is completely set these girls rarely know how many places there are at the table, but simply that Mr. A. and Miss B., etc., are each provided for. This is not because they have difficulty in counting, but it is because it is characteristic of the defective's inability, or unwillingness, to preconsider and plan the task. Because simple foresight is so necessary in any industrial work in which any responsibility is placed on the child, is it any wonder that we place so much emphasis on the importance of tests involving this capacity?

As regards instruction in number work, a rule that can safely be laid down is: *Defectives ultimately below 9 years' mental age should only be taught the very simplest number facts. It is an utter waste of time to teach such children number operations involving figuring with pencil and paper, for they will either never use or else they will never understand these operations.* As a general principle it is useless to develop mechanical learning ability which can only be applied in situations involving a power of foresight which the defective does not possess.

Manual Training

Needlework.

In considering the ordinary school subjects we have been concerned chiefly with the question of what *not* to teach. In reviewing the manual work we intend to put forward some positive suggestions. As one of the most practical and hence most valuable occupations for defectives needlework must take a high place. In selecting children for this work we are guided more by industrial aptitudes than by mental abilities as shown by the Binet tests. Here the Porteus tests will give the best indications. Some of the children showing aptitudes for this work would be classed by Binet ages as middle rather than high-grade defectives. Yet they almost invariably score much higher in the performance tests. Likewise, an ability possessed by one child is by no means paralleled by that of another child of equal test age. There may be temperamental reasons which unfit the child for success in this occupation, so that the steady going defective of middle grade is oftentimes doing much better work in needlework than some children who test much higher, per Binet, but who are unwilling or unable to work carefully and patiently. We cannot reiterate too often

that a uniform kind of manual training does not fit every child.

One boy whose test age per Binet was 7 years was taught to darn stockings so well and so rapidly that he did all the darning for a group of twenty-five children and had his task easily finished at the end of each week. A girl testing 9 years per Binet assimilated training so well that she was able to cut, fit, and finish a plain gingham working dress in six hours. Another boy, with test age per Binet of 7 years, learned to knit so well that his work was sent for exhibition to three world-famed expositions. A girl of test age 8 per Binet learned to make buttonholes so perfectly that her work was also exhibited. Today she is past her years of usefulness, but is as happily occupied with her needlework and rocking chair as many a normal woman is. In the case of the last-mentioned boy ordinary school work was an impossibility. The girl learned to read well, but her choice of occupation is invariably to sew and crochet rather than to read.

For the special class needlework is probably one of the most desirable occupations, because practical training can be given with such inexpensive material. But it must be taught as a practical everyday occupation, and not in a logically analysed series of steps as one would teach mathematics. The school at one time had a lamentable experience of the failure of the latter kind of teaching. The work was first put under a highly trained teacher in needlework, who presented it to the children in a series of drills, introducting stitches of gradually increasing complexity, and who set herself what seemed to be the logical aim of requiring proficiency in the simpler stitch before proceeding to the next one. *But she did not realize the fundamental inability of the feeble-minded child to look ahead and to see the purpose and end of action.* No interest was aroused, the work slumped and failure resulted. The next year these methods were forgotten; a little pretty material, a doll or two to dress, and a sewing machine were purchased—*and the children sewed.* At the end of the year an exhibit was ready—crude it is true—but it consisted of real work. Since that time needlework has become one of the most valuable means of training in this school.

This is so because it is adapted to many grades of children; the material is inexpensive and equipment cheap; and, finally, the training is not an end in itself, but it has a useful and valuable product. For the children with most aptitude there is no break between the school and the dressmaking or tailoring room. Lower-grade children

with developed abilities in this direction may be placed with immense advantage in the mending room—an essential part of every institution.

The electric sewing machine is used in school in order that there will be no necessity for the child to relearn the work in the industrial department. Results of this work are easily apparent. Many girls do make or assist in making their own dresses, and many boys from choice mend their own clothing, and do it well. As regards the training, a progression is provided from the kindergarten onwards. In the latter department they learn to dress dolls. The next grade of children make the simplest garments in sizes to fit themselves. The more advanced children learn to cut, fit and make underwear, dresses, blouses, etc. A limited amount of fancy work and knitting is done.

Woodwork.

If the provision of a pleasurable occupation should be the chief aim in the education of defectives, one of the most desirable forms of training that we could choose would be woodwork. It has a fascination for boys because it savors of real work, and the same tools that grown-ups use are handled. It works wonders in capturing the attention and interest of the boy who, in the ordinary school class, is incorrigible. The pride and pleasure that every boy who does woodwork finds in the "something attempted, something done" is almost unbelievable. No matter how crude the product actually may be, it is very often the first thing that the defective has ever planned and executed. Nothing succeeds like success, and the child who feels that he has successfully accomplished a real task, and that, too, by the sweat of his brow and the labor of his hands, has gained immeasurably in a self-confidence, which he carries over to his next work. The improvement that some of the most unpromising cases make is astonishing. Despite all this, only very qualified approval may be given to woodwork as a practical occupation for defectives. Its advantages are mainly indirect for the important reason that it is only rarely that in after life opportunity is presented to apply the training. Since institutions cannot take care of all defectives, one of the chief aims of special class work is to fit the steady going defective of good manual ability for industrial self-support. But we must consider supply and demand, and it must be admitted that the demand for defectives as carpenters, cabinet-makers or toy-makers is very small indeed. The reason of this is, of course, that no matter how excellently the defective may work under supervision in the woodwork class, and no matter how fine a product he may turn out, he is unable to assume

the responsibility and to exercise the planning capacity which these occupations demand. As a matter of fact, carpentry and cabinet-making rank far too highly in the scale of skilled trades to make it worth while attempting to train any but a very small number of defectives for work in these directions.

This is shown even in our own institution, where we must admit that very few boys trained in woodwork are ever scheduled to the carpenter shop to do new or repair work. This is an admission of partial failure, and we feel that it is the institution's fault that a larger field of usefulness is not opened up to our woodwork trainees. But even though more boys might be placed in this work, it would engage only those with the very highest grades of ability and who possess exceptional aptitudes in this direction—and these are few in number. Consequently, apart from the indirect advantages in the way of general training already alluded to, woodwork must, with the great majority of defectives, be regarded merely as hobby work. Even though a useful or salable article be produced, it remains hobby work, because the special class cannot provide continuous employment in this direction and the outside industrial world provides so few opportunities for the defective.

Within an institution, however, it holds a valued place in the school curriculum. Toys which are necessary for the enjoyment of many of the smaller children are here manufactured; the work may be made to lead up to furniture repairing; much really high-class furniture in use in the institution has been produced in the woodwork room; and, finally, it provides an engrossing occupation for many children who are unemployable in other departments. Its value is, as we mentioned before, limited, because continuity in the work cannot be, or is not afforded.

As to methods, certain adaptations have been found necessary for defectives. Sloyd methods were at first employed, with a noteworthy lack of success. One child, after making a sad failure of all attempts to give him set training, brought a cut-out picture of a rabbit to school and asked to be allowed to cut one out of wood. The teacher assented, and to her surprise this boy, who was supposed to be unable to saw to a line, made a very creditable attempt at the task. The teacher realized that a defective will follow his own plan better than another's, and she allowed the children to select their own tasks, with very good results. Another boy made such fine progress that he was retained as a helper in school. Another built four hen

houses, each an improvement on the last, his final attempt being a first-class piece of work. If it were our intention to make an impression, we might cite many instances of the seemingly miraculous results achieved by certain children in woodwork, but we frankly admit that it is the exceptional case who develops efficiency sufficient to provide him with an occupation for after-life. Therefore, as a practical occupation, and not hobby work, except for some few carefully selected cases, it will hold a doubtful value for the special class.

Domestic Training.

Amongst practical occupations for defectives in an institution domestic training ranks very high because, unlike woodwork, it will be ultimately the lifework of a great number of trainees. For this reason the effort was made to make the line leading from school training to institution and industrial work an unbroken one. Thus the beds which the children are taught to make are the exact duplicates of those in the institution. The dining table which is to be set up is arranged exactly as those in the institution dining room. The children cook the food as it is prepared in the kitchens. Equipment for teaching ironing is the same as is found in the regular ironing rooms, whilst the articles ironed are sent direct from the laundry.

The work in dusting and sweeping, etc., is almost purely imitative. A great need is to begin the training early, when the habit of doing the task in a set way is more easily engrained. The effect of years of imitative effort is shown by the excellent work of many steady going, dependable inmates who are not of particularly high grade.

In the selection of children for this work attention must be paid to the temperamental characteristics of the children. We do not intend to insist that the lessons of tidiness, cleanliness, care and economy practiced in domestic work are carried over into the everyday life of the defective. We will be content with the modest claim that the child who is naturally neat and orderly is made more so by the exercise of these aptitudes in domestic work.

Almost every child—and this applies to boys as well as girls—likes to cook, and by using cooking as a privilege the drudgery of house-cleaning work may be more easily borne by the defective child. Some of our most troublesome boys have been better behaved in the cooking class than anywhere else.

In considering the value of domestic training in the special class we must be guided by the same consideration as applied to woodwork.

The highest form of domestic work, such as cooking and waiting on the table, are only possible to a few comparatively high-grade children. This is true because of the fundamental disability of the defective to use common-sense methods when placed in a situation where he must act largely on his own responsibility. This lack of common sense is due to the failure of a defective to realize a situation and to use forethought and prudence enough to deal with it effectively. At the same time, the lower branches of domestic work are, to the well-taught defective, quite within his mental and physical compass.

The cost of equipment and supplies for this work is high, but because there is a constant demand for domestic workers in the outside world the expense of training is well worth while. Of course, in an institution, it forms an essential part of the school work. Six different classes, each averaging ten members, go to domestic training, so that each day sixty children are given instruction. Space forbids us to give many interesting details regarding methods of training.

Basketry.

Probably the most impractical and unprofitable occupation for defectives is one that is found almost universally taught in special schools and classes. A comparatively low-grade child can make a basket, but only a very high-grade child can make a salable basket within a reasonable time. One boy chronologically 12 and with Binet age at 7 years was set to make a Navajo basket. This boy, with wonderful patience and skill, produced a masterpiece in shape, color, and execution, but the task took him an hour a day for five days per week for a school period of five months. A year later he was taken out of the school department and set to driving a two-horse team on the farm, where the value of the work done in five hours at this occupation was surely equal to that done in five months of basketry. Possibly because it does take up so much of the defective's time may be one reason why it does appeal to the special class teacher. Whilst the defective is kept busily at work the teacher is under no necessity to plan other work, and unwillingness to exercise planning capacity is characteristic, though to a lesser degree, of the ordinary person as well as of the defective. Be this as it may, there is a special demand for instruction in basketry by special class teachers who attend our summer school, and doubtless they hasten to begin it with their pupils. Yet the material is expensive, the work is wearisome, the product is mainly unsalable, except to philanthropists, and the future as regards the after life of the child is practically nil. But the smaller

boys and very bright girls appear to enjoy it immensely. However, if the object of the special class is to amuse defectives, the basketry has more than a moderate value. As a means of practical training it is of very doubtful service.

School Gardening.

The training given in school gardening may provide the basis for after-school occupation for such boys who are temperamentally well fitted for this work. On the surface there appears to be most excellent reasons why farm work should be an ideal occupation for defectives. The only trouble is that the high-grade boy who has been well trained on the farm will often do almost anything rather than accept the drudgery of this kind of labor. The hours are too long, the work is arduous and the attractions of city life are too tempting to hold any defective on a farm who has sense enough to get out of it. Absolute candour would force us to cite several instances wherein boys dismissed from this institution after years of farm training have gone to some city and earned far better wages with less effort by screwing up packing cases or rivetting in shipyards. The attempt at teaching gardening as an after-life occupation by means of a little plot in connection with a special class in a city school system must be considered purely pastime.

Our facilities for this work at Vineland consist of a 3-acre school farm, divided into flower and vegetable plots, berry and small fruits, garden, orchard, poultry department, and apiary. The children have built the hen houses for about 60 birds and generally look after the school farm with less supervision, and with the exercise of more forethought than they show in any other occupation. Here, too, an unbroken line leads from the school training to the institution farm. That boys successfully trained in school come to dislike the farm work later is because enough effort cannot be made to make the work sufficiently interesting.

We must concede that unless the after care of defectives is properly organized the special class can do next to nothing in the way of a practical training along these lines.

Broom and Brush Making.

Brush and broom making is well suited to three grades of boys. The low grade boys pick seeds from the corn and sandpaper broom handles. Higher grade boys may pull old brooms apart, sort corn and soak it, etc. Those of most intelligence may grade corn, form up, sew and trim brooms. These last operations require care and

judgment, otherwise an inferior article is produced. During the last two years the brooms made in the school department by six boys and the teacher have practically supplied the institution with regular house brooms. About half of the corn required has been grown on the farm.

Brush making is good work for low and middle grade defectives. The higher grade soon learn the steps in brush making, but often lack sufficient patience and care in working to put out a good article. Almost all kinds of brushes required in the institution are produced here.

Both broom and brush making provide excellent work for defectives, but they suffer the same drawbacks as do the other industries above mentioned. Unless there is organized effort in the way of placing and keeping defectives in employment for which they have been fitted, then such occupations must be largely condemned as impractical.

Rug Weaving and Quilt Making.

The work with weaving looms constitutes excellent training for physically well developed girls and boys of medium and high grades of mentality, whilst those of lower grade may assist in the preparing of rags for weaving. An advantage of this work is that it chiefly uses what is otherwise waste material in the home or institution.

The class of work done at Vineland is such that it is readily salable, so much so that it returns a profit over the cost of instruction, etc. At present our looms turn out jute, chenile, and rag rugs, couch covers, and shopping bags. The looms of simplest order—two and four harness—are best suited for defectives. Quilt-making is well fitted for girls of mature age, and of eight years and below mentally. The cost of material is about one-third of the finished article, as sold in our stores. A class of twelve girls will make a quilt in about three weeks, working one class period of fifty minutes daily. Girls enjoy this work and are interested in each step. Because of its suitability to middle grade defectives it may be worth while to set out the steps: One, measuring off and joining material; two, sewing material into quilting frames; three, arranging and fastening the cotton or wool filling; four, placing the cover and fastening it around edges; five, tacking the quilt with bright colored silk or wool; six, binding the edges or fancy-stitching it.

There is no reason why loom work should not be practiced in special classes. A large part of the cost of instruction could be met

by the sale of work, but as regards its ultimate value as a means of self-support of the defective at large in the community it suffers the same criticism which has been levelled at other forms of hand work. Until the horizon of special class work has been immeasurably widened by provision for after-care, such training, though industrial, may never be linked up with real industry. Those who know the defective best realize that his training must be specific. He learns so purely from imitation, because he lacks the ability to adapt himself readily to changed conditions. By continuous practice he acquires efficiency in one direction, without any measurable gain in the ability to carry over his experience to new tasks. Consequently, when years of patient instruction have made a defective into an efficient loom-weaver, he is a loom-weaver and has come no nearer being made a basket-weaver. In other words, whatever may be true as regards transfer of training with normal children it is true to a much more limited extent of the defective. A person with sufficient intelligence to gain in generalized ability through the special training of the special class has given proof that he is not defective. He may be socially deficient, but from other reasons than the lack of intelligence.

The gist of the matter is that the defective lives on the ground, so that it is of no avail to throw his educational nutriment up on the trees. To develop in a defective an ability which he never puts to practical use, is to uncover one talent, which might as well lie buried with the other nine.

Shoe Mending.

Despite the work done elsewhere our experience goes to show that shoe mending is work that is fitted only for the very highest grade of defectives. Children of lower grade may do work of a kind, but when one considers the discomfort of an ill-mended shoe one realizes why this work must be done with a care in execution beyond the capacity of the ordinary defective; yet there is no more necessary work in the institution than shoe mending. In one week a man with the assistance of three high grade boys repaired 85 pairs of shoes, but no one of these boys could actually earn his living in this way. As regards the making of new shoes this is done in factories outside almost entirely by machinery, and each machine performs one special operation.

No training that the special class could give would fit the defective for the running of one of these machines, unless, of course, the actual machine is provided for practice.

At one time this institution made shoe repairing an occupation for a large number of boys. Unfortunately it was found in too many instances that the defectives with not enough intelligence to complain were suffering extreme discomfort as the result of bad workmanship in mending the boots. A good record of shoe repairing, such as we quoted above, is a much better index of the instructor's capacity for shoe mending than the children's. For defectives this work has, generally speaking, no future. The factories do not want shoe cobblers, nor even a person who can make a pair of boots wholly. They want machine operators, and there are, no doubt, in every manufacturing trade, some simple machines which the high-grade defective can operate. For this kind of work the special class cannot pretend to make preparation.

Writer Press Work.

Printing with the writer press has not many advantages for the special class pupil in the way of providing for ultimate self-support. It has a limited field of application. It requires the exercise of patience, prudence, accuracy, and good judgment, combined with fair proficiency in English composition and spelling. As with cooking, it is a much-prized privilege to be allowed to use the writer press. Some children with high-test levels per Binet and promising ability in scholastic work are not successful in this work, for they lack the essential temperamental qualities mentioned above.

Music and Physical Culture.

These are not industrial occupations, and therefore will not be dealt with at length. All that can be said in favor of these studies for normal children applies with added force to the training of defectives.

The value of physical culture, including games, can hardly be overstated. Defective children do not play normally any more than they work normally. They require direction and organization in play as well as in work. Here, again, it is not well to over-emphasize the general mental effects of training in games, but we can say that any child with mental alertness will have it quickened by such exercise, whilst the physical advantages of this training are too well known to require any mention.

Music, too, must have a most important place in the educational treatment of defectives. The band work of defectives under a competent instructor is worthy of the highest commendation. Singing, of course, has a general appeal to the interest of the children.

Music and physical culture provide the backbone of all of our entertainments. In addition, the band work provides a fine means of discipline, and children who show but little power of sustained attention in any other work display it here to an unlooked-for degree.

Conclusions.

The special class teacher who reads the foregoing criticisms on the usefulness or applicability of each of the above subjects may feel constrained to enquire whether there is anything left that is wholly profitable or whether indeed it is worth while to teach defectives in special classes at all. The answer depends entirely on whether provision is being made for the care and guidance of the defective after he leaves the special school. We have said again and again that this provision of after-care is not the special class teacher's business. But without it the teacher works wholly in the dark and without any legitimate expectation of results. Ordinary honesty impels us to say that, apart from the relief the special classes give to the regular grades, and considering only the preparation of the defective for industrial self-support, the teaching is certainly *not* worth while. Our intention in beginning this paper was not to indulge in wholesale criticism but to set out our own methods and their justification by practical results. In this way we thought to have provided positive guidance for many teachers who have not had the great advantage of watching for many years the progress of school-trained defectives and of estimating the use to which the training is being put. Yet, with subject after subject, we have been forced to admit that it has no future for the child or that it was suited only to selected high-grade cases. We are impelled by necessity as well as by inclination to tell the truth, even if it should involve confession of failure. A very cursory investigation would prove to any observer whether the children trained in special classes are following the occupations for which they have been ostensibly fitted. No amount of exhibited work of high quality will ever get over the fact that in the majority of special classes there is no knowledge of what becomes of the child after he leaves school at 16 years. Interested, as we are, to the utmost in the future of the work with defectives, we would far rather say this ourselves than have the admission forced upon us by unfriendly critics.

Some may object that the ultimate aim of the special class is not to attempt to fit the defective for self-support. To this we must answer that ultimately this aim must be paramount. If there are 500,000

defectives in the U. S. A.—which is only one-half of 1 per cent of the population—then at $300 per child per annum it would cost a small matter of $150,000,000 annually to provide for them in institutions. Some will say it is easier to provide for them in this way than in gaols and almshouses. As a matter of fact, it is not easier, but very much harder. In any case, the cost is prohibitive. But we believe that the defective is better and happier when contributing to his self-support. There is no reason why the majority of defectives cannot be cared for in their homes and trained in special classes up to the age of 16 years, provided that training is specific and does look towards an actual means of livelihood. The first prerequisite of success is better provision for the psychological study of the defective at present in special classes, so that aptitudes may be discovered and fostered.

Secondly, there must be social agencies by which the well-trained, high-grade defective will be placed in the position for which he has been trained and kept there under a measure of social surveillance. The middle and low-grade defectives must be graded into farm and industrial colonies, the latter preferably near the centers of population, the former on large tracts of waste land which might be reclaimed and sold. The inmates should be well housed, but in cheap and portable buildings. The ideal of this work must be complete or partial self-support, along with ample provision for entertainment and happiness.

We wish to repeat, as emphatically as we may, that the blame for the present failure of the special class system to meet the situation does not lie at the door of the teachers. One of the biggest lessons that we all must learn is that a defective is a defective, and not to be made over into a competent, self-supporting workman in a skilled trade. We must be ready to admit that training which leads nowhere is no training. Finally, the public must awaken to the fact that the responsibility of dealing with this immense problem cannot be lightly shifted onto the shoulders of a few hundred patient, earnestly working, large-hearted special class teachers.

Herein lies the tragedy of the whole matter—that so much wonderfully fine human endeavor is going to waste because those who are responsible for the present system are exercising no more forethought for the future of the defective than the defective himself displays. Truly, the blind lead the blind.

SUMMARY

1. In a great many cases the special class fails either because it is not fitting the defective for any occupation or because he does not follow in after life the occupation for which he has been trained.

2. Children vary just as much in their capacities for manual training as they do in scholastic abilities. In the great majority of instances special classes are not paying attention to this fact. Teaching a defective some scraps of woodwork or basketry is not helping very much to solve the question of his ultimate self-support.

3. There are indirect advantages of special class work with defectives, the main one being that the regular grades may do better when the feeble-minded are eliminated.

4. The purpose of this paper is to put down Vineland's educational experience. Its plan is to take each subject in turn and to attempt to justify its position in the curriculum either of the special school or special class.

5. An important point is the right selection of children for training in the various departments. For scholastic training the Binet tests give the best basis of classification. For industrial abilities the Porteus tests give the best indications.

6. Some labor-saving rules that have been evolved from our experience are:

(1) Children two years or less mentally (average Binet-Porteus age) are excluded from kindergarten because they are found to make no permanent gain.

(2) Children of seven years and less, Binet age, make no use of reading, whether for pleasure or profit. Children with I. Q.'s below 50 should not be given any instruction in ordinary school subjects at all.

(3) As regards number work, defectives mentally less than 9 years per Binet, unless displaying special aptitude, should be given only the most elementary work. Operations involving the use of pen and paper are utterly useless for such defectives. They either do not use or do not understand such operations.

7. Needlework is one of the most practical occupations for defectives because it suits the middle as well as the higher grades, the equipment is cheap, there is ample demand for workers, and, finally, it must eventually contribute, if not to self-support, at least to self-help. The best work is not always done by those grading highest per Binet.

8. Woodwork is one of the most attractive of occupations for defectives, but its value is seriously limited by the fact that the trades which it leads to are too highly skilled for the defective to achieve competency in them. A few with special aptitudes may find scope here, but, for the majority, it must remain hobby work.

9. Domestic training has great value because it has range enough for all kinds of defective ability and it presents to the higher grades a means of livelihood. Within an institution it is essential to have well-trained workers.

10. Basketry is one of the poorest means of training, because it is slow and unprofitable, and has no future as regards the child. It is much in favor because children's work may provide an attractive exhibit and it is, to certain children, a pleasureable occupation. The defective who can and does earn his living hereby is very rare.

11. School gardening on a practical scale is not possible in the city school systems where most of the special classes are. It is fine work for children, but suffers from the fact that farm labor to which it leads is very often drudgery from which the high-grade defective quickly escapes to take up easier and better-paid work as a factory hand.

Editorial

Beginning with this issue we purpose to devote some space each month to abstracts and reviews of the more important published articles having a bearing on the problems of subnormality. There is at present no monthly magazine wholly devoted to recording work in the field of mental deficiency. Scatttered through the psychological and medical journals are, however, very many articles dealing with the social, educational or psychological phases of this important subject. Though bibliographies of titles are available, more adequate notice of these articles is needed, and we feel that to give brief abstracts in the way we suggest is probably one of the best services our small publication can render. In pursuance of our endeavor to make this BULLETIN of more general value to those interested in mental deficiency we would invite original contributions for publication and reprints for abstracts or review.

Honolulu Special Class

Francis C. Johnson

It was during the summer of 1916 that Miss Kite told us of the urgent need for special teachers here and what a big field was offered.

After teaching one year in the Bronx, N. Y., and a year in Perth Amboy, N. J., public schools, I applied as special teacher in Honolulu, having first written to a friend of mine here in the same work. I was cabled to come immediately, and arrived in May, after an exciting trip, starting teaching the day I arrived.

The school for defectives in Honolulu is the only such school on the five islands. It is located in an old residence in the center of the city, which formerly was used as a hospital, but movements are being made for a better building than the present one. The work was started five years ago by Miss Gertrude Mason, of Berkeley, California, who had had special training for teaching the blind. Miss Mason's purpose was to organize a class for the blind, but finding so many cases of backward, feeble-minded, so-called "incorrigibles," and misunderstood children who were put out of their classes and schools to make room for the brighter, she soon had a class of "special" children in addition to the blind. For two years Miss Mason worked alone, her classes steadily increasing until four deaf children were added. She made such splendid progress that more became interested, and the next year Miss Sara McBride, of Washington, came as teacher for a class of thirteen deaf children, most of whom were deaf and dumb, and Miss Thomas, of Indiana, to assist with the defective children.

Many of the backward cases were returned to the grades and the defectives classified. Every nationality was and is represented —the majority of the children being Hawaiian, part Hawaiian ("hapi howli," as they are called), and other Portuguese, Filipino, Porto Rican, Chinese, many of them, Japanese, Korean, Spanish, German and one little American girl.

This year three new teachers, including myself, have been added to the teaching staff. Miss Mason is principal, also having a class of fifteen blind boys and girls. Miss McBride, with a class of fifteen

deaf and dumb and the two other classes with classified and graded defective children, consisting of fifteen children each. I have taken charge of the industrial work of the school and have a class of high-grade girls in sewing and knitting, boys in basketry and woodwork, bead work, brushmaking and folk dancing. The blind help to make their living by making raffia, hula dancing skirts, which are sold to tourists largely through the efforts of Mr. Effinger, who has a special interest in the work being done here, and is also much interested in your work at Vineland.

Efforts are now being made for the establishment of a home for the feeble-minded for the higher grades. Mr. Kinney, who is the superintendent of all the schools on the five islands, is very ambitious for the work to progress, and sees that all necessary supplies are immediately furnished.

Abstracts From Current Literature

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The Response of a Composite Group to the Standard Revision of the Binet-Simon Tests. By H. W. Chase and C. C. Carpenter, University of North Carolina. Journal of Educational Psychology. April, 1919.

The response of a composite group of 77 elementary school children betwen the ages of 9-13, inclusive, to the Stanford Revision of the Binet-Simon tests was made recently on Chapel Hill, N. C. Of these 77 children, 12 were members of families connected professionally with the University of North Carolina, while the remaining 65 were a rather homogeneous group whose families are of average social status, being chiefly skilled workmen, small business men, and small farmers.

A comparison of the I. Q.'s of these 65 children with Terman's figures on the distribution of I. Q.'s shows that the largest group, 43%, is included in the 10 point range from 86-95, while Terman's largest group, 33.9%, ranges from 96-105. The 12 children ranged from 100-140 I. Q., quite in accord with Terman's findings, but the other group differed too widely for easy explanation. Judged by the standards of the small town community, most of the town children are from homes of average social status, and the same is true of the country children, if judged by the prevailing standards of rural life.

And yet, the median intelligence of this group is 7 points lower than that of Terman's average group. It is not to be supposed that the average home in North Carolina is of lower intelligence than that in the west; but such a condition does exist in children in the upper grades of the elementary schools in this community, excluding the "Faculty" children.

The study has gone far enough to show that if the Stanford or any other intelligence scale is to be used with any uniformity, a great amount of work must be done in the derivation of norms. Most of the work has been done with city school children, but now the question stands: Can rural school children be judged by the same standards? Furthermore, does a standardization for one section of the country hold for all sections? Is it possible to judge the intelligence of an individual without knowing first the normal intelligence in the community in which he lives?

These considerations are of primary importance in the attempt to diagnose feeble-mindedness. According to Terman, an I. Q. below 70 is definitely indicative of mental deficiency, while it is an open question whether 75 may not be the borderline of normality. However, such judgments cannot be made without first considering whether or not the individual with a low I. Q. is capable of adjusting himself to the demands of his own community; and if, despite an I. Q. of 60, determined from an ordinary intelligence scale, that individual is leading a normal life, he cannot be designated as feeble-minded. It is altogether probable that while the majority of people with I. Q.'s between 60 and 70 are feeble-minded, still there undoubtedly are others of the same intelligence level who can and do meet the demands of a fairly simple community.

From this study it appears that environment is not necessarily the cause of difference in level in intelligence tests, for in Chapel Hill, the "Faculty" children had practically the same surroundings as the town children, the only differences being a marked advantage in home life and occasional travel. Otherwise they have had the same teachers, attended the same schools, played together freely and reacted to the same rural environment. So it would seem that heredity is the main determining factor in mental qualities, while environment is to be considered a symptom rather than a cause for different levels of intelligence. The small towns have been subjected to a process of adverse selection, for the more capable and alert people have been attracted to the cities. The knowledge of the effect of this selection

upon the capacity of the younger generation in such functions as those tested by the scale would be of the very greatest social and educational value.

The Present Status of the Subnormal Class. By Francis N. Maxfield. Adapted from an address before the Council of Education of the State of New Jersey at Montclair, October 25, 1918.

The establishment of special classes for backward and defective children has been a good step in the direction of differentiation of education, but there are many ways in which the present organization of these classes might be improved.

The warrant for the special class consists chiefly in the fact that it removes the backward children from the regular grades, so that the teacher is left free to devote all her energy to the normal children, unhampered by the presence of defectives. Then, too, these opportunity classes provide good experimental stations of education which are so much needed and finally, perhaps the least important reason from the standpoint of the school officers, these classes offer educational training for subnormal children who cannot be in institutions.

Originally the special class was simply a grade room under one of the regular teachers who had all the defectives regardless of their mental age and capability. However, it is now recognized that there are various types of backward children—those whose retardation is due to remediable causes, and the feeble-minded. The former are being placed in restoration classes, and the teaching has been so planned as to bring these children up to grade. The work for the feeble-minded is very different—special equipment is supplied so that manual training takes the place of the formal school work.

In Newark, under Miss Anderson, a decided development has taken place in the establishment of a special school for defectives rather than scattered classes. Departmental work has been introduced; better grading and organization is possible; closer supervision and a better opportunity to train new teachers are other advantages. It is often urged that defective children should not be separated from normal children and so deprived of the advantage of the association, but it must not be forgotten that invariably the defective child is scorned by other children and at best his companions are much younger than himself, so that objection to the separate school for backward children cannot stand.

It is recommended that public opinion be aroused to the need for special schools, rather than for merely special classes; that the

lowest grade children be treated custodially and cared for during school hours by a practical matron instead of a trained teacher; that the classes maintain an average attendance of 18 or 20 children instead of only 15; and that institutional care be constantly kept in mind whenever social incompetency in the near future seems likely. Education during school age is only a small part of the problem of the mental deviate, for in order to reduce poverty, delinquency, and crime he must be under continual guidance.

Practical Applications of Psychology As Developed by the War. By G. Stanley Hall. Pedagogical Seminary. March, 1919.

The efficiency of war has been incalculably increased by the work of the vocational psychologist who has been putting the right man into the right place in the army. Scores of tests to evaluate the psychic ability of man have been devised and of these, the intelligence tests are most definitely calibrated, but the others are rapidly becoming so standardized that character and emotional disposition will soon be as well investigated as intelligence now is.

The responsibility of the vocationalist is to develop humanism right out of the heart of each of the chief occupations themselves. Vocational training will include not only the teaching essential for the actual accomplishment of a given task, but it will reach out beyond the machine to the history of the industry, its achievements, its distribution of interests and to every part of the process from the crudest raw material to the finished product. A man will no longer be dominated by his own machine—his interest will be that of the whole industry until he will truly appreciate the value of his own place in the great concern.

Simulating (Malingering)—Not an Adequate Diagnosis. By William A. White, M.D. Journal of Nervous and Mental Disease. September, 1919.

For some time it has been the tendency of diagnosticians to detect cases of malingering, label it as such and then treat the individual as a perfectly normal person who is consciously attempting to deceive.

It is this attitude of mind that is criticised, for it is scarcely allowable to make a diagnosis from a single symptom such as apparent simulation of continued ill-health. Rather simulation should be reckoned as an indication of defective personality; the trouble should be thoroughly examined to see what the patient is trying to accomplish through his psychoses and then something like justice may be attained in the treatment of malingering.